PHARUS

User's Manual Rel 1.2 **GB**

D.T.S. Illuminazione srl - ITALY
http://www.dts-lighting.it

DTS
The Lighting Company

Made in Italy

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1- TECHNICAL FEATURES

PHARUS is the latest evolution of the D.T.S. follow spots range.
PHARUS is a new follow spot ideal for all professional applications (theatres, concerts, television studios, fashion displays, special events, etc).
PHARUS offers a distinct improvement in projection quality - thanks to a new optical group with condenser lens.
PHARUS is available in two models: PHARUS 1500 (fitted with a 1500 W discharge lamp) and PHARUS 1200 (fitted with a 1200 W discharge lamp).
PHARUS offers also a series of updated functions that ensure effective and creative use:
New customizable colour system (5 interchangeable gel filter holders);
Linear iris-diaphragm (extractable);
Linear zoom (7° to 16°);
Linear focus;
Mechanical dimmer with black-out.
PHARUS is designed to resist all the rigours of continuous use: the body is made in aluminium and stainless steel, which offer high resistance to heat and mechanical stress.
PHARUS is complete with external ballast (electromagnetic or electronic).

PHARUS 1500 (Cod. 03.TP005.L)
Magnetic ballast 220-240V 50/60Hz
PHARUS 1500 (Cod. 03.TP005.120.L)
Magnetic ballast 110V 50/60Hz
PHARUS 1500 EB (Cod. 03.TP005.EB.L)
Electronic ballast 90-260V 50/60Hz
PHARUS 1200 (Cod. 03.TP009.L)
Magnetic ballast 220-240V 50/60Hz
PHARUS 1200 (Cod. 03.TP009.120.L)
Magnetic ballast 110V 50/60Hz
PHARUS 1200 EB (Cod. 03.TP009.EB.L)
Electronic ballast 90-260V 50/60Hz

Lamp
Lamp: HTI 1500W/D7/60 (PHARUS 1500)
HMI 1200W/S (PHARUS 1200)
Base: SFc 10-4 with notch

1- TECHNICAL FEATURES

Optical group
New optical group with condenser lens
Zoom 7° ÷ 16°
Linear focus
Extractable iris-diaphragm
Mechanical dimmer with black-out

Colours
Colour changer (optional): 5 interchangeable gel filter holders
Automatic switching system between colours

Gobos
Gobo holder for gobo projections (optional)

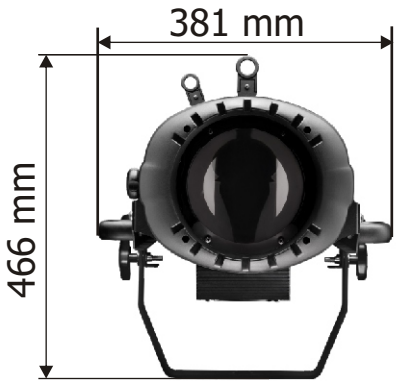
Construction
Made on aluminium and stainless steel
High resistance to heat and mechanical stress
Removable cover for easy access to lamp

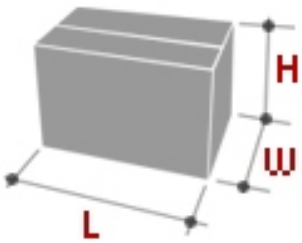
Safety
Safety microswitches

Power supply
220-240V 50/60Hz electromagnetic ballast version
90V-260V 50/60Hz electronic ballast version
Power consumption 1600 VA, with built-in power factor correction
External ballast (electromagnetic or electronic)

Weight
21,2 Kg (PHARUS); 22,8 Kg (PHARUS with colour changer); 7 Kg (electronic ballast)
19 Kg (electromagnetic ballast).

Dimensions (LxWxH)
Projector (996 x 381 x 466mm)
Projector with colour changer (1108 x 381 x 466mm)
Ballast: electromagnetic (300 x 251 x 269mm), electronic (400 x 251 x 220mm)





Projector Packaging Dimensions (LxWxH)
1200 x 450 x 500 mm
Weight
23,2 Kg

Ballast Packaging Dimensions (LxWxH)
350 x 300 x 310 mm
Weight
20,5 Kg electromagnetic
8,5 Kg electronic

2- IMPORTANT SAFETY INFORMATION

2.1 Fire prevention:

PHARUS 1500 uses a Osram HTI 1500W/D7/60
PHARUS 1200 uses a Osram HMI 1200W/S
The use of any other alternative lamp is not recommended and will null and void the fixture's warranty.
-Never locate the fixture on any flammable surface.
-Minimum distance from flammable materials: 1 MT.
-Minimum distance from the closest illuminable surface: 2 MT.
-Replace any blown or damaged fuses only with those of identical value. Refer to the wiring diagram if there is any doubt.
-Connect the unit to mains power via a thermal magnetic circuit breaker.

2.2 Prevention of electric shock:

-High voltage is present inside the unit. Unplug the unit prior to performing any function which involves touching the inside of the moving head, including lamp replacement.
-The level of technology inherent in the PHARUS requires the assistance of specialised personnel for all servicing. Please refer to an authorised DTS service centre.
-A good earth connection is essential for proper functioning of the projector.
-Never connect the unit without proper earth connection.
-The fixture should be located in places with a good air ventilation.

2.3 Protection against ultraviolet radiation:

-Never turn on the lamp if any of the lenses or filters are damaged. Their respective shielding functions will only operate efficiently if they are in perfect working order.
-Never look directly the lamp when it is on.

2.4 Safety:

-The external surface of the unit, at various points, may exceed 70°C. Always wear suitable hand protection when handling the unit.
-Always replace the lamp if any physical damage is evident.
-Never install the fixture in an enclosed area lacking sufficient air flow. The ambient temperature should not exceed 40°C.
-A hot lamp may explode, so always wait for at least 10 minutes prior to attempting to replace the lamp.
-Always wear suitable hand protection when handling the lamp.

2.5 Level of protection against the penetration of solid and liquid objects:

-The projector is classified as an ordinary appliance and its protection level against the penetration of solid and liquid objects is IP 20.

3- MOUNTING THE LAMPS

Warning: Switch off the unit before replacing the lamp.

Osram HTI 1500W/D7/60
Power 1500W
Luminous flux 145.000 lm
Colour temperature 6.000°K
Lampbase SFc10-4
Rated life 750 hours

Osram HMI 1200W/S
Power 1200W
Luminous flux 110.000 lm
Colour temperature 6.000°K
Lampbase SFc10-4
Rated life 750 hours

1) Loose the two screws located on the rear side of the unit (photo 1) .

Photo 1

Photo 2

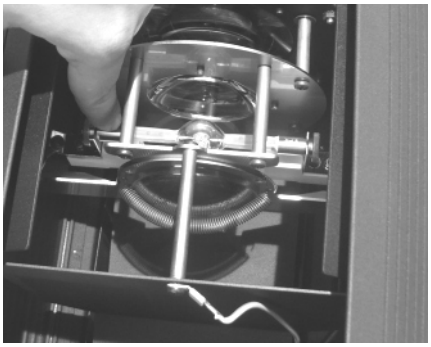


Photo 3

2) Remove the cover (photo2).
3)Insert the lamp on the lamp socket and tighten the lamp screws (photo 3).
The lamp used on PHARUS 1500 is made in quartz glass and should be handled with care. Always follow the instructions supplied in the lamp's packaging. Never touch the glass directly but use the tissue provided in the lamp's packaging. The lamp socket is symmetrical.
DO NOT USE UNDUE FORCE ON THE GLASS. In case of difficulty, read again the instructions and repeat the procedure.

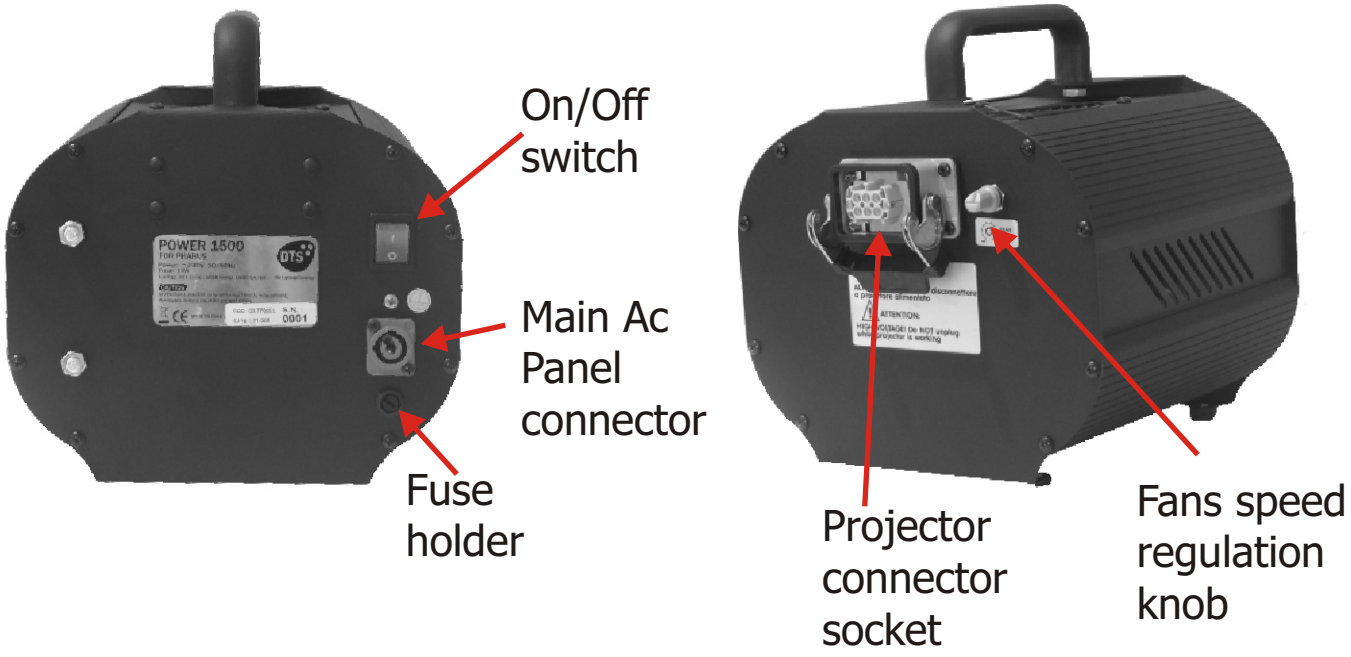
3.1 Lamp alignment

The lamp socket is self centering; So, there is no need to allign the lamp.

4- VOLTAGE AND FREQUENCY

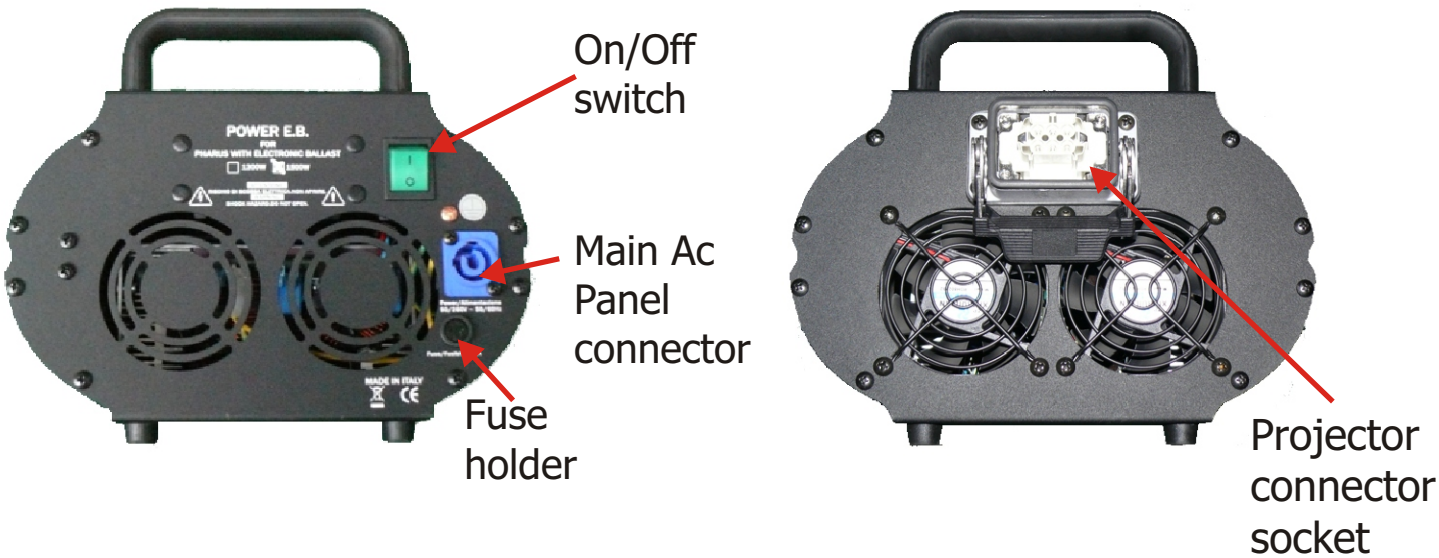
The PHARUS with electromagnetic ballast operates at 220-240 VOLT 50 or 60 Hz; available also at 110 VOLT 50 or 60 Hz.

Please note that Electromagnetic Ballast can not be use in Pharus 1500 EB Electronic ballast



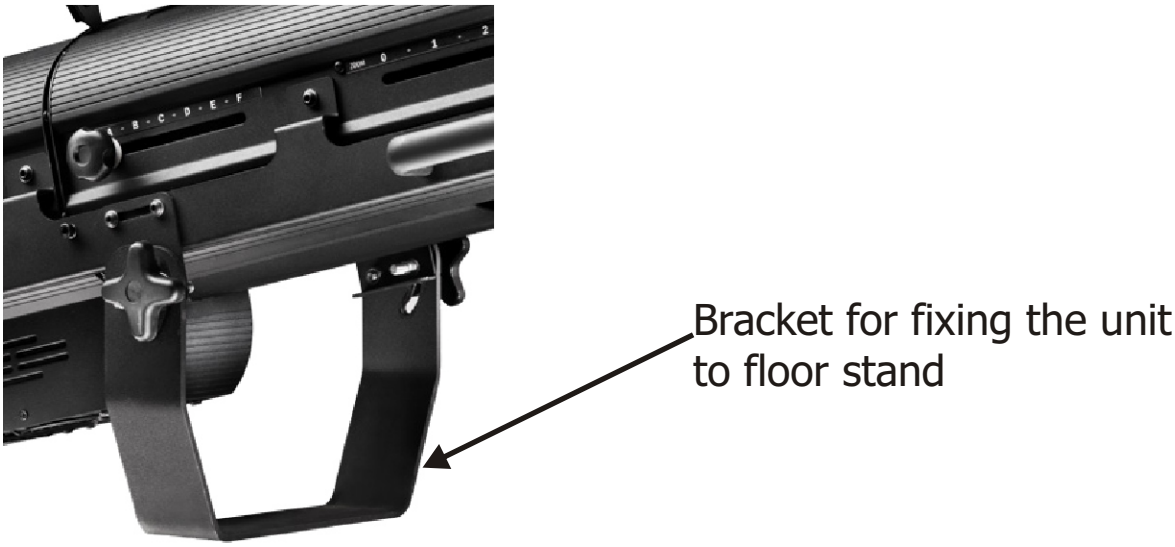
The PHARUS with electronic ballast operates at 90-260 VOLT 50 or 60 Hz.

Please note that Electronic Ballast can not be use with pharus 1500 Electromagnetic ballast



5- INSTALLATION

PHARUS should be floor-mounted.
The unit is provided with a bracket for fixing to floor stand.
The floor stand from which the unit is fixed should be capable of bearing the weight of the unit.

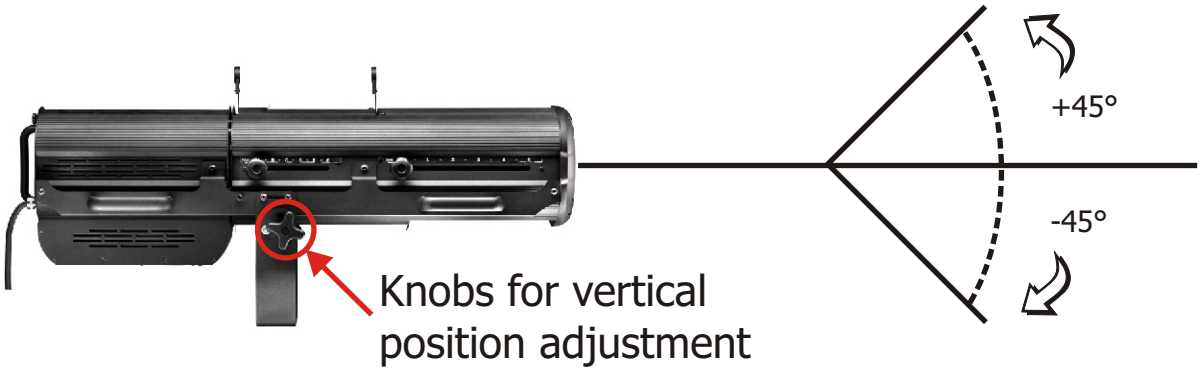


5.1- Protection against liquids

The projector contains electric and electronic components which should under no circumstances come into contact with oil, water or any other liquid. The proper unit functioning would be compromised should this occur.

5.2- Movement

The projector has a maximum vertical movement of +/- 45°



5.3- Risk of fire

Each fixture produces heat and must be installed in a well-ventilated place. The minimum recommended distance from flammable material is 1 MT.
Minimum distance from the object being illuminated is 2 MT.

5.4- Forced ventilation

You will note, on inspection, that the PHARUS features various air inlets and cooling fans located on both ballast and projector. These should, under no circumstances, be blocked or obstructed whilst the projector is in operation.
Doing so could cause the fixture to seriously overheat thereby compromising its proper operation.

5.5- Ambient temperature

The projector should never be installed in places that lack a constant air flow. The ambient temperature should NOT exceed 40°C.

6- MAINS CONNECTION

PHARUS with electronic ballast operate at 90-260 VOLT 50-60 Hz.
PHARUS with electromagnetic ballast operate at 220-240 VOLT 50-60 Hz or 110 V 50-60 HZ.
Prior to connecting the unit to your mains supply,
ensure that the model in your possession correctly matches
the mains supply available. For connection purposes,
ensure that your plug is capable of supporting 8 amps at 220-240V,
Or 16 amps at 110 V
Strict adherence to regulatory norms is strongly recommended.

Electromagnetic ballast
220-240 V 50/60 Hz
or 110 V 50-60 Hz

6.1- Protection

The use of a thermal magnetic circuit breaker is recommended for each PHARUS.
A good earth connection is essential
for the correct operation of the projector.

Electronic ballast
90-260V 50 / 60Hz
Main AC Panel connector

7- OPENING THE PROJECTOR HOUSING

It is possible to inspect the inside of the projector by opening the covers as indicated below.

ATTENTION

REMOVE MAINS POWER PRIOR TO ACCESSING THE PROJECTOR'S INTERNAL COMPONENTS.

REAR SIDE:

1) Loose the two screws located on the rear side of the unit (photo 1) .
2) Remove the cover (photo2)

Photo 1

Photo 2

FRONT SIDE:

1) Loose the screws located on the bottom front side of the unit (photo 1) .
2) Now it is possible to move the covers for internal inspection (photo2 and 3)

Photo 1

Photo 2

Photo 3

8- IRIS REPLACEMENT

ATTENTION
REMOVE MAINS POWER PRIOR TO PERFORMING THE IRIS REPLACEMENT.

1) Move the dust cover toward the front of the unit (photo 1) .
2) Push the iris security lock (photo2).
3) Pull up the iris assembly (photo 3).

Photo 1

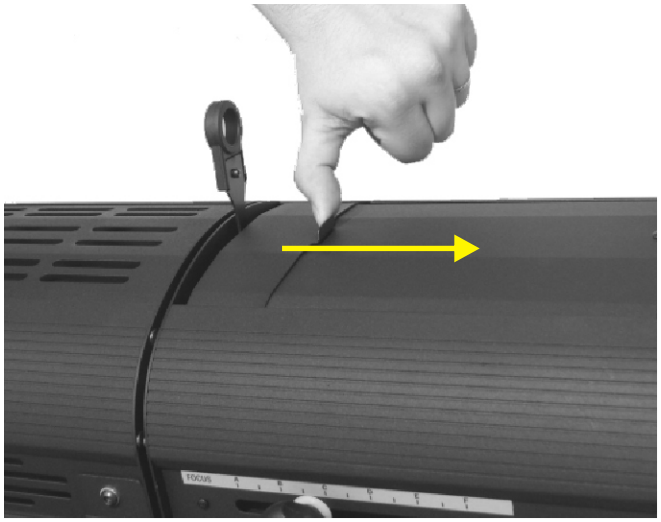
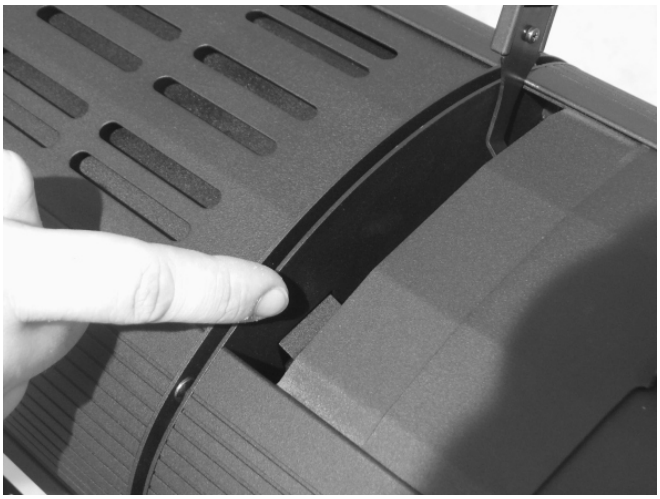


Photo 2



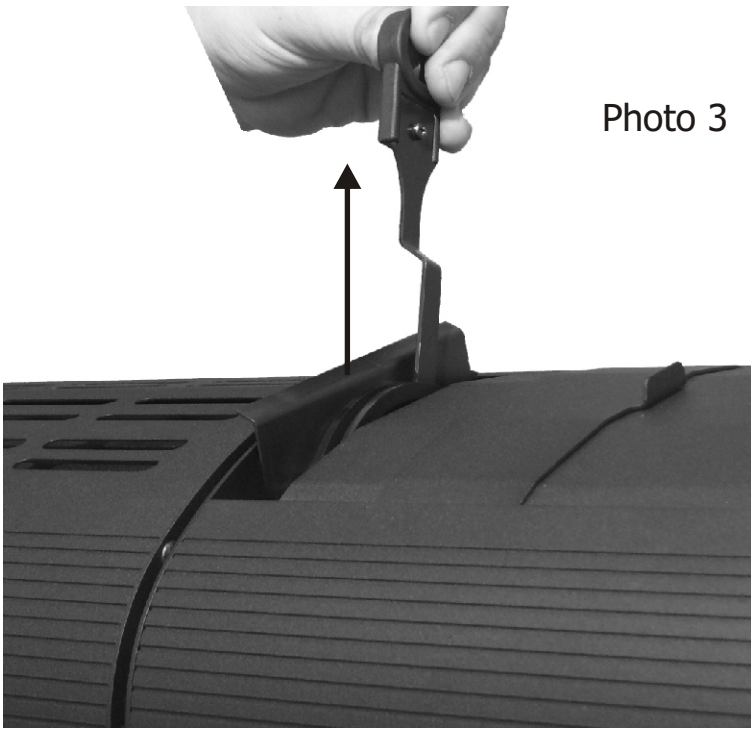
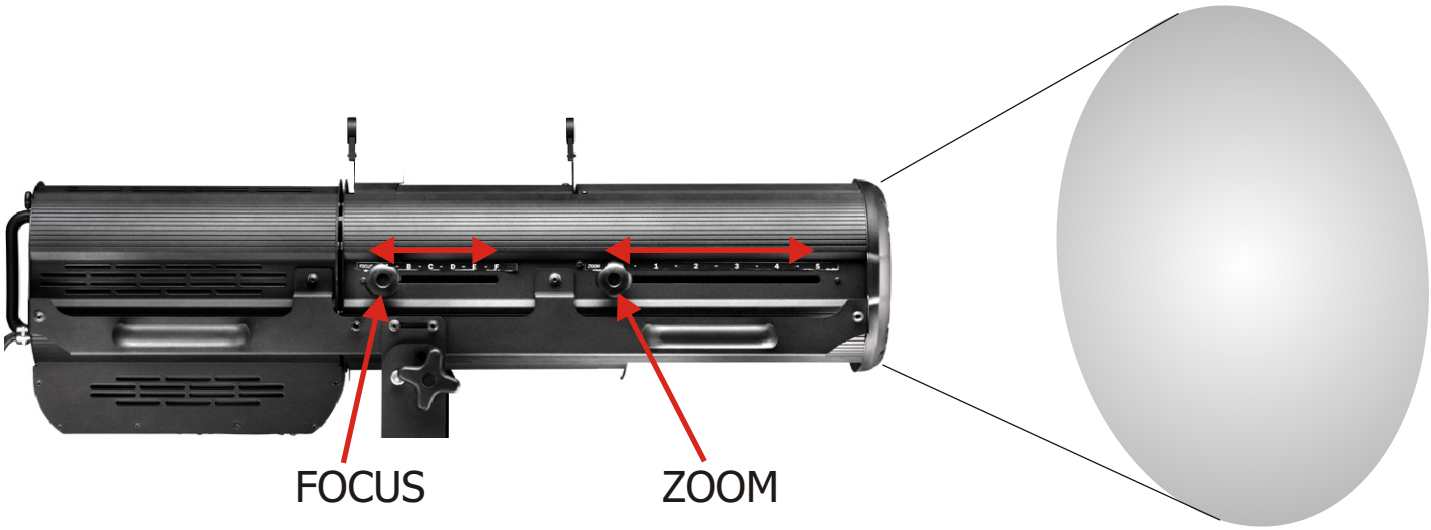


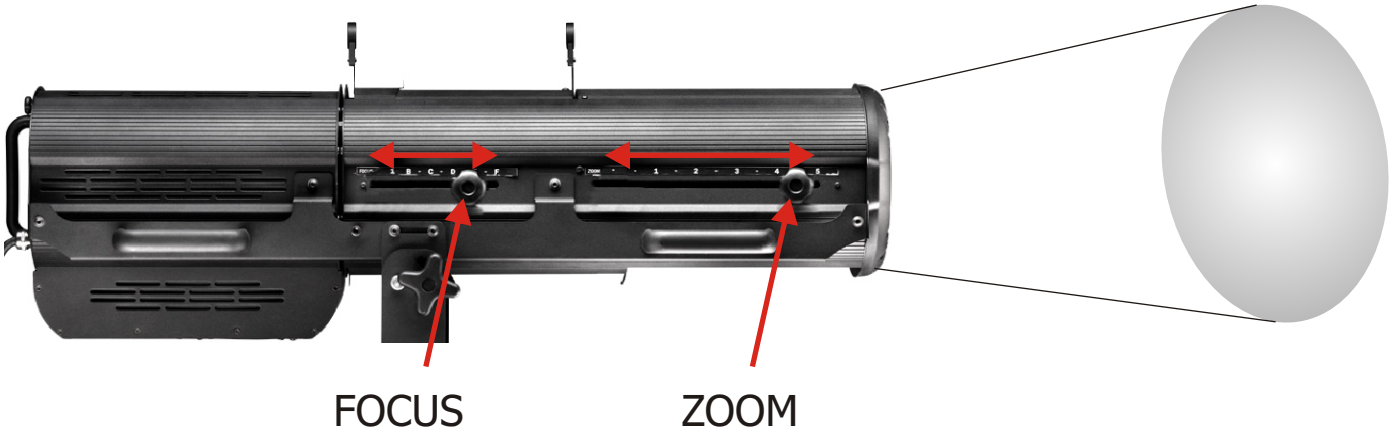
Photo 3

9- PROJECTOR USE

9.1 Focus and Zoom

Focus and zoom adjustment lenses, are located on the front side of the unit.
Place the projector on the object to illuminate, loose the fixing lenses knobs, adjust the lenses position till the projection is whell focused on the object.
Thighten the knobs.

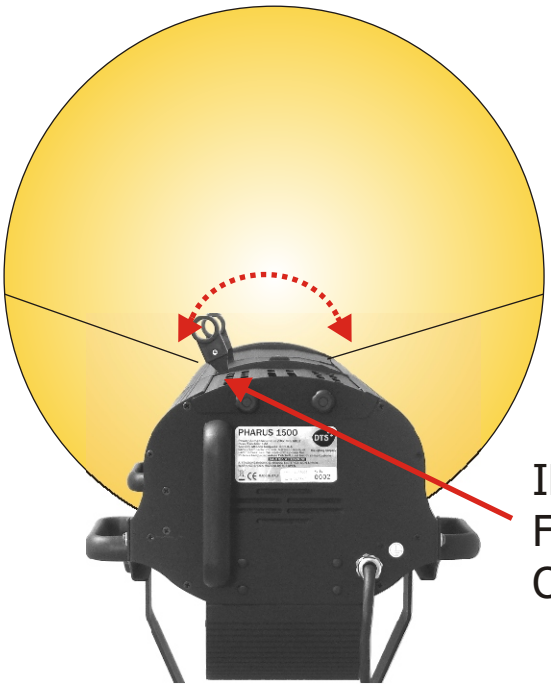




9.2 Iris and Dimmer

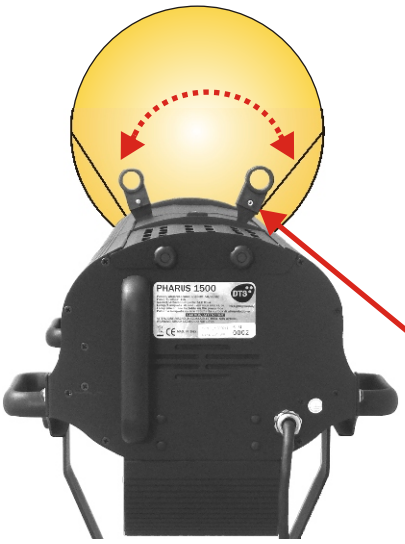
Iris and Dimmer, are located on the front side of the unit.
Move the iris from left side to right side to reduce the projected area (photo 1 and 2).
Move the Dimmer from right side to left side to reduce the light output intensity till blackout.
(photo 3 and 4).

Photo 1



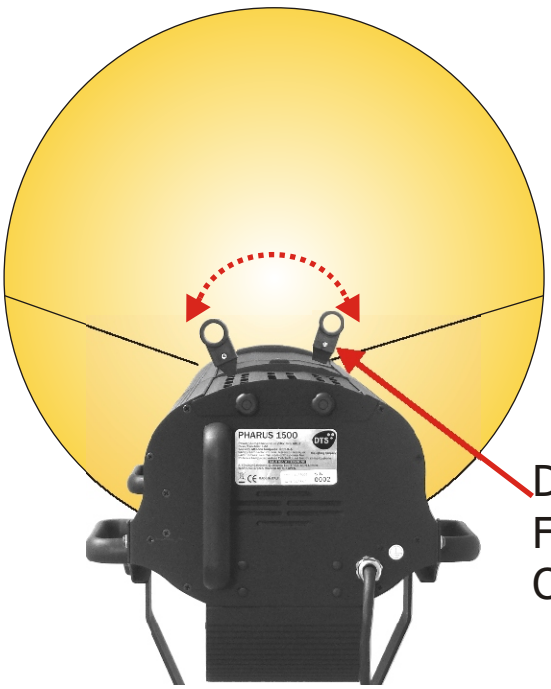
IRIS
FULL
OPEN

Photo 2



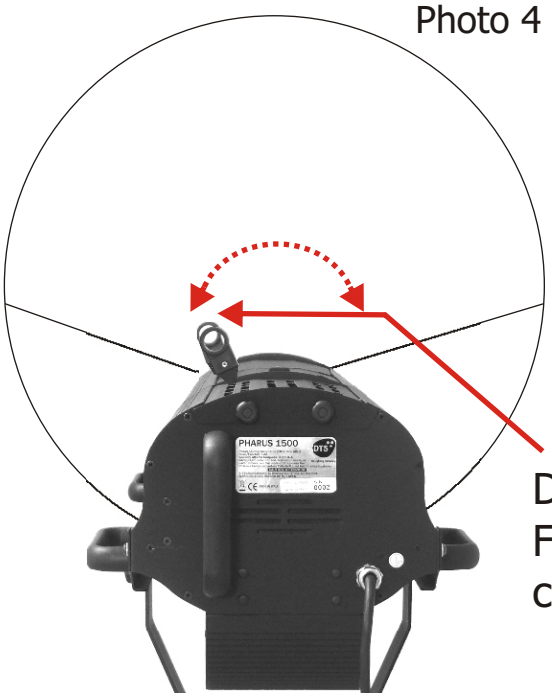
IRIS
FULL
CLOSED

Photo 3



DIMMER
FULL
OPEN

Photo 4



DIMMER
FULL
closed

10- PERIODIC CLEANING

10.1- Lenses and reflectors

Even a fine layer of dust can reduce the luminous output substantially. Regularly clean all lenses and the reflector using a soft cotton cloth, dampened with a specialist lens cleaning solution.

10.2- Fans and air passages

The fans and air passages must be cleaned approximately every 6 weeks. This periodic cleaning will depend of course, on the conditions in which the projector is operating. Suitable instruments for performing this type of maintenance are a brush and a common vacuum cleaner or an air compressor. If necessary, clean the fans and air passages more frequently.

11- PERIODIC CONTROLS

Lamp

The lamp should be replaced if there is any visible damage or deformation due to heat. This will help to avoid the danger of the lamp exploding.

Mechanical parts

Periodically check all mechanical parts. Periodically check the lubrication of all components, particularly the parts subject to high temperatures. If necessary, lubricate with suitable lubricant, available from your D.T.S. distributor.

Electrical components

Check all electrical components for correct earthing and proper connection of all connectors, refastening if necessary.

Fuse replacement

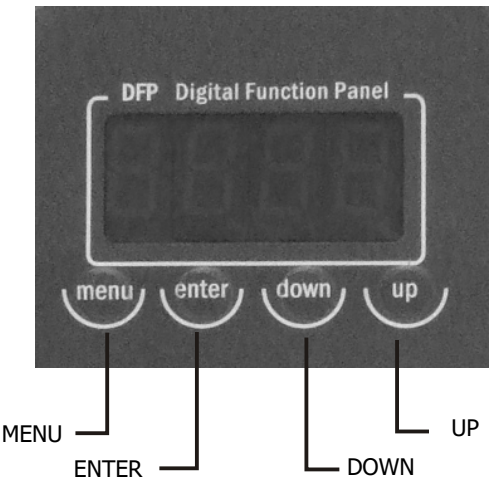
Locate the fuse, which protects the lamp and electronics, in the balast of the PHARUS
Using a multimeter, test the condition of the fuse, replacing it with one of equivalent type if necessary.

Attention

Disconnect mains power prior to removing the projector housing.

DISPLAY FUNCTIONS

PHARUS ELECTRONIC BALLAST



DISPLAY FUNCTIONS

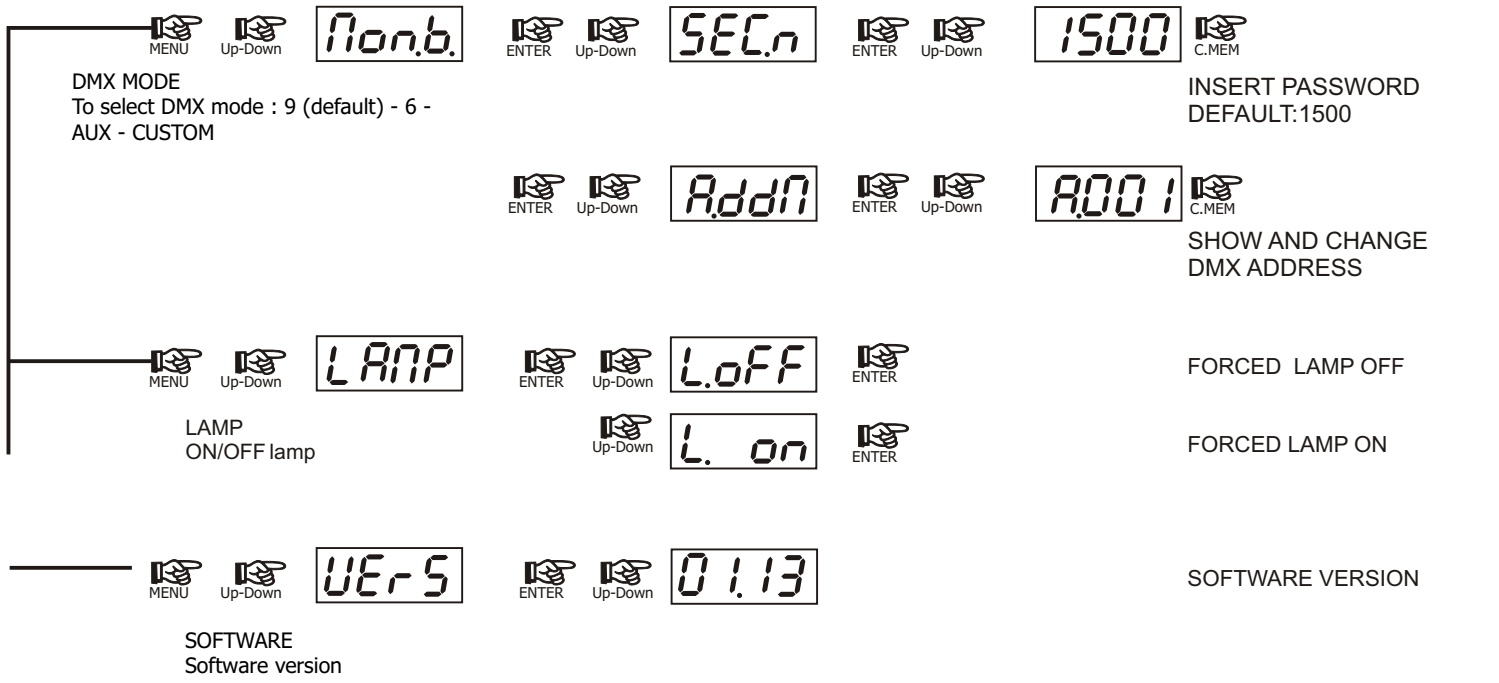
The PHARUS ELECTRONIC BALLAST display panel shows all the available functions . Using these functions, it is possible to change some of the parameters and add some functions. Changing the D.T.S. setting can vary the functions of the unit so that it does not respond to the DMX 512 signal used to control it. Carefully follow the instructions below before carrying out any variations or selections.

NOTE: the symbol ☞ shows which key has to be pushed to obtain the desired function.

☞ C.MEM = ☞ MENU + ☞ UP

Software version 2.10

- ☞ MENU ☞ Up-Down **t InE**
  - TIMER
    Visualization of lamp life (reset possible) and total time unit's working (reset not possible)
  - ☞ ENTER ☞ Up-Down **H.tOt** ☞ ENTER — BALLAST LIFE TIME HOURS
  - ☞ Up-Down **n.tOt** ☞ ENTER — BALLAST LIFE TIME MINUTES
  - ☞ Up-Down **H.LAn** ☞ ENTER — LAMP LIFE TIME HOURS
  - ☞ Up-Down **n.LAn** ☞ ENTER — LAMP LIFE TIME MINUTES
  - ☞ Up-Down **ACC.L** ☞ ENTER — LAMP STRIKE
- ☞ MENU ☞ Up-Down **non.b.**
  - BALLAST MONITOR
  - ☞ ENTER ☞ Up-Down **P.noN** ☞ ENTER ☞ Up-Down **P.136** — NOMINAL LAMP POWER
  - ☞ Up-Down **U.out** ☞ ENTER ☞ Up-Down **U.000** — LAMP VOLTAGE
  - ☞ Up-Down **I.out** ☞ ENTER ☞ Up-Down **1.000** — LAMP CURRENT
  - ☞ Up-Down **t.PFC** ☞ ENTER ☞ Up-Down **0024** ☞ C.MEM — TO RESET
    POWER SUPPLY TEMP. PFC SIDE
  - ☞ Up-Down **t.dCd** ☞ ENTER ☞ Up-Down **t.dCd** ☞ C.MEM — TO RESET
    POWER SUPPLY TEMP. DC/DC SIDE


MENU Up-Down Mon.b. ENTER Up-Down SEC.n ENTER Up-Down 1500 C.MEM
DMX MODE
To select DMX mode : 9 (default) - 6 - AUX - CUSTOM
INSERT PASSWORD DEFAULT:1500
ENTER Up-Down AddN ENTER Up-Down A.001 C.MEM
SHOW AND CHANGE DMX ADDRESS
MENU Up-Down LAMP ENTER Up-Down L.oFF ENTER
FORCED LAMP OFF
Up-Down L. on ENTER
FORCED LAMP ON
LAMP
ON/OFF lamp
MENU Up-Down UEr5 ENTER Up-Down 01.13
SOFTWARE VERSION
SOFTWARE
Software version

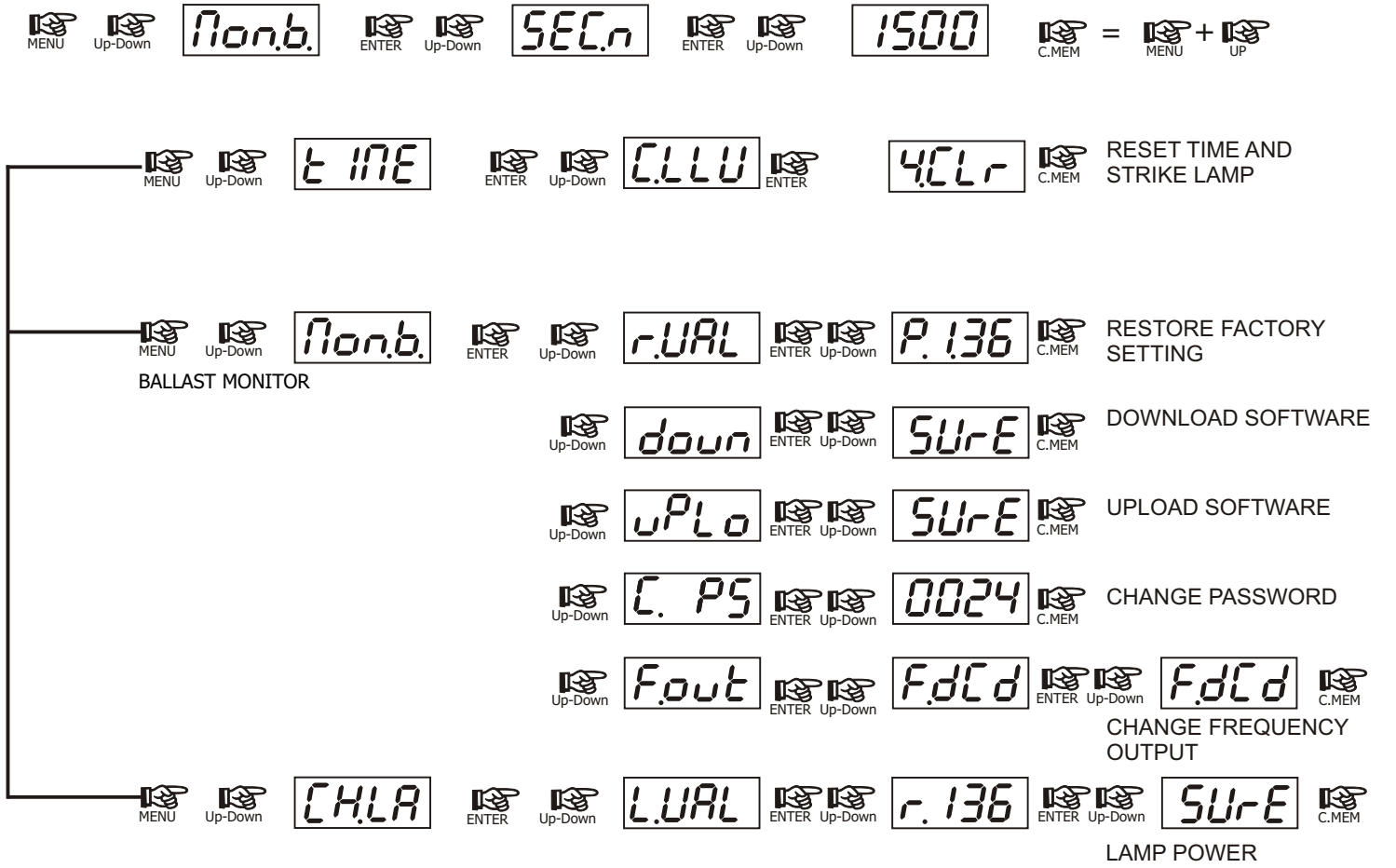
13- HIDDEN MENU

For technical personnel only.

To operate this menu:

-Enter in Ballast monitor “Mon.b” select “sec.n”, enter the default code “1500” and Press C.MEM = “menu” + “up”

C.MEM = MENU + UP


MENU Up-Down Mon.b. ENTER Up-Down SEC.n ENTER Up-Down 1500 C.MEM = MENU + UP
MENU Up-Down tIME ENTER Up-Down CLLU ENTER 4CLr C.MEM
RESET TIME AND STRIKE LAMP
MENU Up-Down Mon.b. ENTER Up-Down r.UAL ENTER Up-Down P.136 C.MEM
RESTORE FACTORY SETTING
BALLAST MONITOR
Up-Down doun ENTER Up-Down SUrE C.MEM
DOWNLOAD SOFTWARE
Up-Down uPLo ENTER Up-Down SUrE C.MEM
UPLOAD SOFTWARE
Up-Down C. PS ENTER Up-Down 0024 C.MEM
CHANGE PASSWORD
Up-Down Fout ENTER Up-Down FdCd ENTER Up-Down FdCd C.MEM
CHANGE FREQUENCY OUTPUT
MENU Up-Down CHLA ENTER Up-Down LUAL ENTER Up-Down r.136 ENTER Up-Down SUrE C.MEM
LAMP POWER

Note

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The Lighting Company

ISO 9001:2000
D.T.S. quality system
is certified to the
ISO 9001:2000 standard

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